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MR. S. H. DWORETSKY  
AT&T CORP ROOM 2A-207  
ONE AT&T WAY  
BEDMINSTER, NJ 07921

EXAMINER

WOZNIAK, JAMES S

ART UNIT	PAPER NUMBER
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2626

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/966,259	<b>Applicant(s)</b> ROSE ET AL.	
	<b>Examiner</b> James S. Wozniak	<b>Art Unit</b> 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on 30 January 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. In response to the office action from 9/29/2005, the applicant has submitted an amendment, filed 1/30/2006, arguing to traverse the art rejection based on the subject matter of the dependent claims (*Amendment, Pages 2-12*). The applicant's arguments have been fully considered, however the previous rejection is maintained due to the reasons listed below in the response to arguments.

### *Response to Arguments*

2. Applicant's arguments have been fully considered but they are not persuasive for the following reasons:

With respect to **claims 1-4, 13, 15, 18-19, 21-24, 27, and 29**, the applicant's arguments (*Amendment, Page 2*) fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

With respect to **Claims 5, 6, and 25**, the applicant argues that there is insufficient motivation for combining the teachings of Gong (*U.S. Patent: 6,418,411*) and Kanevsky et al (*U.S. Patent: 6,442,519*) (*Amendment, Pages 3-5*). The applicant further argues that the teachings of Gong are directed to that of speech recognition in an automobile environment and

Art Unit: 2626

that Gong provides no motivation for implantation of speech recognition in any other type of environment (*Amendment, Pages 5-6*),

In response, the examiner first points out that the motivation for combining the prior art is not derived from the Gong reference, but from the teachings of Kanevsky (*benefit of expanding the amount of speech data available for improved speech recognition by utilizing a personal computer connected to a network to receive speaker data, Col. 3, Lines 10-35; Prior office action, Page 5*). Furthermore, Gong indicates that a large local speech database would prove costly (*Col. 5, Lines 19-24*), and the implementation of the model adaptation method taught by Gong in a computer network environment would allow for such a large speech database while providing the benefit of improved speech recognition, as noted above. Although Gong discloses a specific invention embodiment in an automobile environment, the examiner points out that Gong teaches that his invention is related to a more general “*speech recognition in a noisy environment*” (*Col. 1, Lines 11-12*) and provides no negative teachings regarding the implementation of speech model adaptation in a computer network-based application. Finally, Gong discloses modifying a speech recognition model with respect to voice (speaker) characteristics (*Col. 1, Line 55- Col. 2, Line 61*), which is in the same of endeavor as the invention taught by Kanevsky (*speaker adaptation method, Col. 4, Lines 18-46*). Thus, because Gong and Kanevsky are from a similar field of endeavor in speech recognition model adaptation and Kanevsky teaches the benefit of using a computer in a network-based application to provide speech data, claims 5, 6, and 25 remain rejected.

With respect to **Claims 7-8 and 26**, the applicant argues that there is insufficient motivation to combine the teachings of Gong and Hunt et al (*U.S. Patent: 6,094,476*) (*Amendment, Pages 7-8*).

In response, the examiner first notes that Gong teaches that his invention is related to a more general “*speech recognition in a noisy environment*” (*Col. 1, Lines 11-12*). Furthermore, Hunt teaches the interchangeability of cellular and satellite telephony networks (*Col. 4, Lines 16-23*) and provides the motivation for the combination of the references (*practical variation of a cellular phone network that allows a user to access voice mail through recognized speech commands, Col. 4, Lines 16-33; Prior office action, Page 6*). Finally, the examiner notes that the Hunt reference is not relied upon to provide the teachings of a DTMF UI, but rather the interchangeability of satellite/cellular telephony and the use of a speech recognition server, however, in arguendo, the examiner notes that use of a UI with a DTMF touchpad is not required by the teachings of Hunt as noted by the applicant (*Amendment, Page 7*). Rather, Hunt teaches the use of such an interface as a last resort upon repeated speech recognition failures (*Col. 2, Lines 45-52*) and also notes hands-free interaction (*Col. 1, Lines 23-32*). Thus, since Gong and Hunt are from a similar field of endeavor in speech recognition model adaptation and Hunt provides the motivation for combining the prior art teachings, claims 7-8 and 26 remain rejected.

With respect to **Claim 11**, the applicant argues that there is no motivation to combine the teachings of Gong and Sönmez et al (*U.S. Patent: 5,745,872*), further stating that the object of Sönmez is to avoid recording data which is contrary to the “on-line noise compensation” taught by Gong (*Amendment, Pages 7-8*).

In response, the examiner notes that the one of the objects of Sönmez is to avoid simultaneous stereo data recording or multiple microphone compensation techniques that are not for general environment compensation (*Col. 1, Line 58- Col. 2, Line 7; and Col. 2, Lines 29-31*) and not to avoid the recording of data altogether as argued by the applicant (*Amendment, Page 8*). In fact, just as in Gong, Sönmez utilizes input speech data to modify a noise model in an online adaptation method (*Col. 2, Line 66- Col. 3, Line 4*). Thus, Gong and Sönmez are analogous art because they are from a similar field of endeavor in the on-line adaptation of speech recognition models. Also, Sönmez teaches the benefit of utilizing a noise environment probability value in speech model adaptation (*Col. 2, Lines 29-36; Prior office action, Page 7*). Therefore, since Gong and Sönmez are from a similar field of endeavor in the adaptation of speech recognition models and Sönmez provides the motivation for combining the prior art teachings, claim 11 remains rejected.

With respect to **Claims 9, 10, 12, 20, 28, and 32**, the applicant argues that there is a lack of motivation in Gong for combining the teachings of Gong and Cilurzo et al (*U.S. Patent: 6,434,626*) (*Amendment, Page 9*). In response, the examiner notes that the motivation for combining the prior art is found in the Cilurzo reference (*the benefit of providing multiple users with access to a speech recognizer having a capacity that can be expanded dynamically, Col. 2, Lines 22-51; and Prior office action, Page 8*). Also, as noted above, although Gong discloses a specific invention embodiment in an automobile environment, Gong teaches that his invention is related to a more general “*speech recognition in a noisy environment*” (*Col. 1, Lines 11-12*) and provides no negative teachings regarding the implementation of speech model adaptation in a computer network-based application. Thus, since Gong and Cilzuro are from a similar field of

endeavor in speech recognition, and Cilurzo provides the motivation for combining the prior art teachings, claims 9, 12, 20, 28, and 32 remain rejected.

With respect to **Claim 14**, the applicant argues that Gong and Hoffberg et al (*U.S. Patent: 5,875,108*) are non-analogous art (*Amendment, Pages 10-11*). In response, the examiner notes that the embodiment taught by Hoffman that is utilized in the rejection of Claim 14 is directed toward a field of endeavor in a user interface systems utilizing speech recognition (*Col. 80, Line 37- Col. 81, Line 9*). Gong also teaches a user interface text display utilizing speech recognition (*Col. 2, Lines 51-65*). Thus, Gong and Hoffberg are analogous art and claim 14 remains rejected. Additionally, the examiner notes that Hoffberg et al is not relied upon to provide the teaching of a user interface, but rather to provide the teaching of an RF-ID.

With respect to the applicant's argument directed toward **claim 16** (*Amendment, Page 11*), the examiner points out that although Gong discloses a specific invention embodiment in an automobile environment, Gong teaches that his invention is related to a more general "*speech recognition in a noisy environment*" (*Col. 1, Lines 11-12*). Also, Byers (*U.S. Patent: 6,219,645*) is directed toward a similar field of endeavor in performing speech recognition in a noisy environment (*Col. 1, Lines 46-53*). Thus, since Gong teaches speech recognition model adaptation implemented in any noisy environment application, Gong and Byers are from a similar field of endeavor in speech recognition performed in a noisy environment, and Byers provides the motivation for combining the prior art teachings (*Prior office action, Page 10*), claim 16 remains rejected.

With respect to **Claims 17 and 30-31**, the applicant argues that there is a lack of motivation for combining the teachings of Gong and Heck et al (*U.S. Patent: 5,950,157*), further

arguing that Gong only teaches the use of a single speech recognition input (*Amendment, Page 12*). In response, the examiner notes that Gong suggests that a microphone may be changed from the one used at a time of system training (*Col. 5, Lines 24-28*), while Heck teaches the specific distortion value that relates to a difference that would result from such a change in microphones (*Col. 10, Lines 9-48*) for the benefit of implementing a robust speaker recognition system that can function in the presence of handset (speech input) mismatches (*Col. 2, Lines 5-9*). Thus, for at least the above reasons, the combination of Gong and Heck is valid and claims 17 and 30-31 remain rejected.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1-4, 13, 15, 18-19, 21-24, 27, and 29** are rejected under 35 U.S.C. 102(e) as being anticipated by Gong (*U.S. Patent: 6,418,411*).

With respect to **Claims 1, 13, and 21**, Gong discloses:

A memory that stores data related to at least one of a communication device, transducer, vocal information and acoustic environmental data (*speech recognition system process of recording environmental noise, speaker, and microphone characteristics that would inherently*



Art Unit: 2626

*require a memory for storing such data for speech recognition processing, Col. 1, Line 55- Col 2, Line 61);*

A controller coupled with the memory that determines the data of the at least one communications device, transducer, vocal information and acoustic environmental data, and then compensates at least one speech recognition model to reflect the data (*speech recognition model compensation, Col. 1, Line 55- Col. 2, Line 61; and Fig. 1, Elements 12 and 20*);

A speech recognizer that recognizes speech utterances by using the at least one compensated speech recognition model (*Col. 2, Lines 26-61; and Fig. 1, Element 21*).

With respect to **Claims 2 and 22**, Gong recites:

The transducer data includes a distortion value related to a transducer of a mobile communications device (*microphone noise compensation, Col. 1, Lines 54-64; and cellular phone microphone, Col. 1, Lines 15-34*).

With respect to **Claims 3 and 23**, Gong discloses:

The data related to the acoustic environmental data includes a background noise value that corresponds to an operating environment of a mobile communications device (*recording background noise, Col. 2, Lines 26-61; and cellular phone acoustical environment, Col. 1, Lines 15-34*).

With respect to **Claim 4**, Gong discloses:

The vocal information includes a distortion value related to an end user associated with a mobile communications device (*determining the gender of a cellular phone user for speaker adaptation, Col. 1, Line 15- Col. 2, Lines 11-25*).

With respect to **Claims 15 and 29**, Gong recites:

The acoustic environmental data is determined using at least one microphone in an end user's environment (*Col. 1, Lines 54-64*).

With respect to **Claim 18**, Gong discloses:

The vocal information represents a variability that exists in vocal tract shapes among speakers of a group (*gender, Col. 2, Lines 11-25*).

With respect to **Claim 19**, Gong discloses:

The controller communicates with a memory that stores various acoustic environmental models and various features of a specific type of mobile device (*speech recognition system process of recording environmental noise, speaker, and microphone characteristics that would inherently require a memory for storing such data for speech recognition processing, Col. 1, Line 55- Col 2, Line 61; microphone noise compensation, Col. 1, Lines 54-64; and cellular phone microphone, Col. 1, Lines 15-34*).

With respect to **Claim 24**, Gong recites:

The data of the at least one of a communication device, transducer, vocal information and acoustic environmental data is received from a cellular telephone (*acoustic environmental data received from a cellular telephone input (microphone), Col. 1, Line 15- Col. 2, Line 61*).

With respect to **Claim 27**, Gong recites:

The speech recognition model is a Hidden Markov Model (*Col. 1, Lines 37-42*).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 5, 6, and 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gong in view of Kanevsky et al (*U.S. Patent: 6,442,519*).

With respect to **Claim 5**, Gong teaches the speech recognition model adaptation system utilizing microphone, speaker, and environmental noise data, as applied to Claim 1. Gong does not teach that the aforementioned data is provided by a personal computer, however Kanevsky teaches a personal computer used to receive speech data (*Col. 4, Lines 18-46*).

Gong and Kanevsky are analogous art because they are from a similar field of endeavor in speech recognition model adaptation. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Gong with the use of a personal computer for receiving speech data as taught by Kanevsky in order to expand the amount of speech data available for improved speech recognition by utilizing a personal computer connected to a network to receive speaker data (*Kanevsky, Col. 3, Lines 10-35*).

With respect to **Claims 6 and 25**, Kanevsky further teaches a PDA for receiving speech data (*Col. 4, Lines 18-46*).

7. **Claims 7-8 and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gong in view of Hunt et al (*U.S. Patent: 6,094,476*).

With respect to **Claims 7 and 26**, Gong teaches the speech recognition model adaptation system utilizing microphone, speaker, and environmental noise data, as applied to Claims 1 and 21. Gong does not teach that the aforementioned data is provided through a satellite communications system, however Hunt teaches such a satellite communications system (*Col. 4, Lines 16-23*).

Gong and Hunt are analogous art because they are from a similar field of endeavor in speech recognition model adaptation. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Gong with the use of a satellite communications system as taught by Hunt in order to provide a practical variation of a cellular phone network that allows a user to access voice mail through recognized speech commands (*Hunt, Col. 4, Lines 16-33*).

With respect to **Claim 8**, Gong teaches the use of an HMM for speech recognition as applied to claim 27, while Hunt further teaches a speech recognizer located at a server (*Col. 11, Lines 43-47*).

8. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over Gong in view of Cilurzo et al (*U.S. Patent: 6,434,526*), and further in view of Sönmez et al (*U.S. Patent: 5,745,872*).

With respect to **Claim 11**, Gong teaches the speech recognition model adaptation system utilizing microphone, speaker, and environmental noise data, as applied to Claims 1 and 21.

Gong does not teach personal user account information that includes administrative information, however Cilurzo teaches such account information (*Col. 5, Lines 27-64*).

Gong and Cilurzo are analogous art because they are from a similar field of endeavor in speech recognition. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Gong with the user account information taught by Cilurzo in order to provide multiple users with access to a network speech recognizer having a capacity that can be expanded dynamically (*Cilurzo, Col. 2, Lines 22-51*).

Gong in view of Cilurzo do not specifically teach a probability value relating to a user being in a particular background environment, however Sönmez discloses such a probability value (*Col. 4, Lines 22-67*).

Gong, Cilurzo, and Sönmez are analogous art because they are from a similar field of endeavor in speech recognition. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Gong in view of Cilurzo with the environmental probability value as taught by Sönmez in order to adapt speech data to secondary environments (*Sönmez, Col. 2, Lines 29-36*).

9. **Claims 9, 12, 20, 28, and 32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gong in view of Cilurzo et al (*U.S. Patent: 6,434,526*).

With respect to **Claims 9 and 28**, Gong teaches the speech recognition model adaptation system having microphone (*Fig. 1, Element 11*), speaker (*Fig. 1, Element 15*), and environmental noise data processing portions, as applied to Claims 1 and 21, while Cilurzo teaches a network-based speech recognition system server (*Col. 3, Line 38- Col. 4, Line 32*).

Gong and Cilurzo are analogous art because they are from a similar field of endeavor in speech recognition. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Gong with the speech recognition network server as taught by Cilurzo in order to provide multiple users with access to a speech recognizer having a capacity that can be expanded dynamically (*Cilurzo, Col. 2, Lines 22-51*).

With respect to **Claims 12 and 32**, Gong teaches the speech recognition model adaptation system utilizing microphone, speaker, and environmental noise data, as applied to Claims 1 and 21. Gong does not teach the ability to select a specific speech recognition network, however Cilurzo teaches such a selection ability (*Col. 5, Lines 4-26*).

Gong and Cilurzo are analogous art because they are from a similar field of endeavor in speech recognition. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Gong with the ability to select a specific speech recognition network as taught by Cilurzo in order to provide multiple users with access to a speech recognizer having a capacity that can be expanded dynamically (*Cilurzo, Col. 2, Lines 22-51*).

With respect to **Claim 20**, Cilurzo teaches the user account information as applied to claim 11.

10. **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Gong in view of Heck et al (*U.S. Patent: 5,950,157*), and further in view of Cilurzo et al.

With respect to **Claim 10**, Gong teaches the speech recognition model adaptation system utilizing microphone, speaker, and environmental noise data, as applied to Claim 1. Gong does

not specifically teach a means of updating a speaker model to reflect a specific type of communications device, however Heck teaches such an updating means (*Col. 9, Line 30- Col. 10, Line 48*).

Gong and Heck are analogous art because they are from a similar field of endeavor in speech recognition model adaptation. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Gong with speaker recognition model adaptation means taught by Heck in order to implement a robust speaker recognition system that can function in the presence of handset mismatches (*Heck, Col. 2, Lines 5-9*).

Gong in view of Heck do not teach speech recognition processing performed at a server, however Cilurzo teaches a speech recognition server (*Col. 3, Lines 38- Col. 4, Line 32*).

Gong, Heck, and Cilurzo are analogous art because they are from a similar field of endeavor in speech recognition. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Gong in view of Heck with the speech recognition network server as taught by Cilurzo in order to provide multiple users with access to a speech recognizer having a capacity that can be expanded dynamically (*Cilurzo, Col. 2, Lines 22-51*).

11. **Claim 14** is rejected under 35 U.S.C. 103(a) as being unpatentable over Gong in view of Hoffberg et al (*U.S. Patent: 5,875,108*).

With respect to **Claim 14**, Gong teaches the speech recognition model adaptation system utilizing microphone, speaker, and environmental noise data, as applied to Claim 13. Gong does

not teach the identification of a device according to an RF ID tag, however Hoffberg teaches such a means for device identification (Col. 80, Line 37- Col. 81, Line 9).

Gong and Hoffberg are analogous art because they are from a similar field of endeavor in speech recognition. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Gong with the RF ID tag taught by Hoffberg in order to provide a means for automatic user identification (*Hoffberg, Col. 80, Line 37- Col. 81, Line 9*).

12. **Claim 16** is rejected under 35 U.S.C. 103(a) as being unpatentable over Gong in view of Byers (*U.S. Patent: 6,219,645*).

With respect to **Claim 16**, Gong teaches the speech recognition model adaptation system utilizing microphone, speaker, and environmental noise data, as applied to Claim 13. Gong does not specifically suggest a plurality of microphones that are initiated as an end user walks in between the microphones, however Byers teaches such a plurality of microphones (*Col. 3, Lines 11-35; Col. 4, Line 66- Col. 5, Line 12; and Col. 12, Lines 30-56*).

Gong and Byers are analogous art because they are from a similar field of endeavor in speech recognition. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Gong with the multiple microphone speech recognition system taught by Byers in order to allow a user to control multiple ASR devices while providing mobility through a room or environment (*Byers, Col. 1, Line 65- Col. 2, Line 7*).



13. **Claims 17 and 30-31** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gong in view of Heck et al (*U.S. Patent: 5,950,157*).

With respect to **Claims 17 and 30**, Gong teaches the speech recognition model adaptation system utilizing microphone, speaker, and environmental noise data, as applied to Claim 13. Gong does not specifically suggest that the microphone (transducer) data is a distortion value based on a difference between an actual transducer and a response characteristic of a training transducer, however Heck teaches such a distortion value that relates to transducer data (*Col. 10, Lines 9-48*).

Gong and Heck are analogous art because they are from a similar field of endeavor in speech recognition model adaptation. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Gong with the transducer distortion scores taught by Heck in order to implement a robust speaker recognition system that can function in the presence of handset mismatches (*Heck, Col. 2, Lines 5-9*).

With respect to **Claim 31**, Gong teaches the speech recognition model adaptation system utilizing microphone, speaker, and environmental noise data, as applied to Claim 21. Gong does not specifically teach a means of updating a speaker model to reflect a specific type of communications device, however Heck teaches such an updating means (*Col. 9, Line 30- Col. 10, Line 48*).

Gong and Heck are analogous art because they are from a similar field of endeavor in speech recognition model adaptation. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Gong with speaker recognition model

adaptation means taught by Heck in order to implement a robust speaker recognition system that can function in the presence of handset mismatches (*Heck, Col. 2, Lines 5-9*).

### ***Conclusion***

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Komori et al (U.S. Patent: 5,956,679)- teaches a method for creating noise adapted HMMs.

Netsch (U.S. Patent: 6,003,002)- teaches a method for adapting speech recognition models to a speaker environment and to a particular speaker.

Art Unit: 2626

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (571) 272-7632. The examiner can normally be reached on M-Th, 7:30-5:00, F, 7:30-4, Off Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached at (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James S. Wozniak  
3/21/2006

  
**DAVID HUDSPETH**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**